

a gas hydrate controller at a concentration of about 0.01 weight percent to about 5 weight percent based on the weight of the water.

- B3
55. (Added) The composition of claim 54, wherein the concentration of gas hydrate controller is about 0.03 weight percent to about 0.75 weight percent based on the weight of the water.
56. (Added) A method of servicing a subterranean formation comprising injecting a gas hydrate controller comprising a polyglycolpolyamine into a borehole that has been treated with a fracturing fluid, wherein the fracturing fluid is a water-based fluid.--
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### REMARKS

Applicant thankfully acknowledges the allowance of claims 32-40. Of the 44 original claims, claims 27 and 41-44 are rewritten. Claims 1-26 and 28-31 have been cancelled. Independent claims 45-46, 54, and 56 have been added. Dependent claims 47-53 and 55 have been added. With this response, claims 27 and 32-56 are now pending.

Applicant authorizes the Commissioner to deduct any fees relating to this document required under 37 C.F.R. §§ 1.16 to 1.21 from Howrey Simon Arnold & White, LLP Deposit Account No. 01-2508/10286.0315.NPUS00/BNT.

For the Examiner's convenience, a list of currently pending claims is attached at the end of this document.

#### **I. Claim objections**

Claims 11 and 19-26 were objected to as allegedly being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

These claims have been rewritten as claims 45-53. Original claims 11 and 19-26 have been cancelled. Applicant respectfully requests that these rewritten claims be allowed.

## **II. Rejection under 35 U.S.C. § 112, second paragraph**

Claims 27-30 and 41-44 were rejected under 35 U.S.C. § 112, second paragraph as being allegedly indefinite in claiming the subject matter of the invention.

The Examiner pointed out that in claims 27 and 41, where  $n=1$ , the substance is not a polyglycolpolyamine. Claims 27 and 41 have been amended to reflect that  $n$  is 2 to 99, as the chemical structure would be a polyglycolpolyamine as recited in line 1 of the claims.

Claims 28-30 and 42-44 were rejected as lacking antecedent basis for the phrase “the water”. Claim 28 has been cancelled. Claims 29-30 have been rewritten as claims 54-55. Claims 42-44 have been amended to be dependent on added independent claim 56. The claims indicate that the concentration of gas hydrate controller is determined as a weight percentage of the water in the fracturing fluid. The specification at page 4, paragraph 13 states that fracturing fluids encompass water-based fluids. The specification at pages 11-12, paragraph 35 describes the weight percentage of gas hydrate controller as a percentage of the weight of water.

Applicant respectfully requests that the rejections under 35 U.S.C. § 112, second paragraph be withdrawn.

## **III. Rejection under 35 U.S.C. § 102**

Claims 1, 12, and 31 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Holtmeyer et al. (U.S. Patent No. 4,964,467). Claims 1, 12-13, 16, and 31 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Mzik et al. (U.S. Patent No.

5,874,385). Claims 1, 14-17, and 31 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Chatterji et al. (U.S. Patent No. 5,713,416). Claims 1 and 31 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by McGuire (U.S. Patent No. 4,424,866). Claims 1-2, 4-5, 12, 14-17, and 31 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Burns (U.S. Patent No. 4,690,219). Claims 1-3, 6-10, 13-18, 28, and 31 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Chang et al. (U.S. Patent No. 6,165,947).

In order to expedite the issuance of the allowed claims, and allowance of the objected claims, rejected claims 1-10, 12-18, 28, and 31 have been cancelled. Applicant may pursue these claims in one or more related patent applications.

In light of the above amendments and remarks, reconsideration and withdrawal of the outstanding objections and rejections are respectfully requested. All amendments are made in a good faith effort to advance the prosecution on the merits. Applicant respectfully submits that no amendments have been made to the pending claims for the purpose of overcoming any prior art rejections that would restrict the literal scope of the claims or equivalents thereof. Applicant reserves the right to subsequently take up prosecution of the claims originally filed in this application in continuation, continuation-in-part, and/or divisional applications.

The Examiner is encouraged to call the undersigned should any further action be required for allowance.

Respectfully submitted,



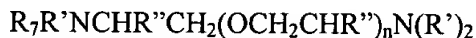
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Marked up version of rewritten claims amended in this Response

27. (Amended) The composition of claim [19] 46, wherein the polyglycolpolyamine has the structure:



wherein  $R_7$  is H,  $CH_3$ , or  $-[R'NCHR''CH_2(OCH_2CHR'')_nNR']_m-R'$ ;

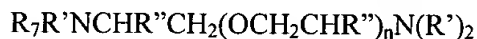
wherein  $R'$  is H or  $CH_3$ ;

wherein  $R''$  is H or  $CH_3$ ;

wherein  $n$  is [1] 2 to 99; and

wherein  $m$  is 0 to 99.

41. (Amended) The method of claim 32, wherein the polyglycolpolyamine has the structure:



wherein  $R_7$  is H,  $CH_3$ , or  $-[R'NCHR''CH_2(OCH_2CHR'')_nNR']_m-R'$ ;

wherein  $R'$  is H or  $CH_3$ ;

wherein  $R''$  is H or  $CH_3$ ;

wherein  $n$  is [1] 2 to 99; and

wherein  $m$  is 0 to 99.

42. (Amended) The method of claim [32] 56, wherein the gas hydrate controller is from about 0.01 to about 5% by weight of the water in the [composition] fracturing fluid.
43. (Amended) The method of claim [32] 56, wherein the gas hydrate controller is from about 0.05 to about 1% by weight of the water in the [composition] fracturing fluid.
44. (Amended) The method of claim [32] 56, wherein the gas hydrate controller is from about 0.03 to about 0.75% by weight of the water [present] in the [composition] fracturing fluid.